ABSTRACT

METHOD OF AND APPARATUS FOR RECOVERING A REFERENCE CLOCK

An apparatus is provided for recovering a reference clock generated by a master clock in a sender. The sender sends timing packets over a network. The apparatus comprises a controllable slave clock and a control circuit which determines the frequency drift between the master clock and the slave clock and controls the slave clock so as to reduce the drift. The error is determined as a function of $(r \times m \times N) - C'_a (n + r \times m)$,

where $C'_a (n) = \left(\sum_{i=0}^{q-1} C'(n-i) \right) / q$.

N is the number of cycles of the master clock between the sending of consecutive timing information items, C'(s) is the number of slave clock cycles between receipt of the (s-rm)th and sth timing information items from the network, m is an integer greater than 0, q is an integer greater than 1, and r is a non-negative integer representing the order of the drift determination.